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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,624	04/02/2004	Lachlan Everett Hall	IRA002US	9570
24011 7590 05/02/2007 SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, 2041 AUSTRALIA			EXAMINER KUGEL, TIMOTHY J	
			ART UNIT 1712	PAPER NUMBER
			MAIL DATE 05/02/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/815,624

Applicant(s)

HALL ET AL.

Examiner

Timothy J. Kugel

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1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 26-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☒ Claim(s) 7, 16 and 23 is/are objected to.
- 8) ☒ Claim(s) 1-54 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date see attached detailed action.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-54 are pending as filed on 2 April 2004. Claims 26-54 are withdrawn from consideration.

### *Election/Restrictions*

2. Applicant's election of the invention of Group I, claims 1-25 in the reply filed on 28 March 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The restriction requirement is therefore made **FINAL**.

Claims 26-54 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 28 March 2007.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Priority***

4. Receipt is acknowledged of papers submitted under 35 USC 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

5. The information disclosure statements submitted on 20 October 2004, 22 February 2005 and 15 February 2007 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statements.

***Specification***

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
7. The incorporation of essential material in the specification by reference to an unpublished US application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating

that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

### ***Claim Objections***

8. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim that depends from a dependent claim should not be separated by any claim that does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

9. Claims 7, 16 and 23 are objected to because of the following informalities:

Each of claims 7, 16 and 23 recite the limitation "PEG" and should recite, "polyethylene glycol". For the purpose of examination, claims 7, 16 and 23 were construed as such.

Appropriate correction is required.

10. While not directed to the elected invention, in the interest of compact prosecution, applicant's attention is directed to claims 30, 31, 46, 52 and 53 which, if considered, would be objected to under 37 CFR 1.75(c) as being in improper form because:

Regarding claim 30, a multiple dependent claim should refer to other claims in the alternative only; and,

Regarding claims 31, 46, 52 and 53, a multiple dependent claim cannot depend from any other multiple dependent claim.

See MPEP § 608.01(n).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 USC 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 2, 4, 7, 8, 15, 16 and 17 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2: first, the limitation “preselected” is not understood as it appears to be a process limitation in a composition claim; and second, the limitation “minimize visible absorption” is not understood because it is not clear what is being absorbed. For the purpose of examination, claim 2 was construed to recite, “selected to minimize the absorption of visible light”.

Regarding claim 4, the inclusion of a term within parentheses renders the claim indefinite because it is unclear whether the included term is part of the claimed invention. For the purpose of examination claim 4 was construed to not recite the parenthetical limitation “DABCO.”

Claim 7 recites the limitation "said hydrophilic group". There is insufficient antecedent basis for this limitation in the claim. Claim 8 is dependent upon claim 7. For the purpose of examination, claim 7 was construed to recite, "The ink composition of claim 6".

Claims 15 and 16 each recite the limitation "the polymeric group". There is insufficient antecedent basis for this limitation in the claim. For the purpose of examination, each of claims 15 and 16 were construed to recite, "The ink composition of claim 14".

Claim 7 recites the limitation "wherein M is Ni". There is insufficient antecedent basis for this limitation in the claim. For the purpose of examination, claim 17 was construed to recite, "The ink composition of claim 5".

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5-9, 11-21, 23 and 25-30 of copending Application No. 10/815,628.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the methods claimed in the copending application fully embrace the compositions instantly claimed.

Regarding the Markush group of singlet oxygen quenchers of instant claim 4, copending claim 30 claims the inkjet ink further comprising a singlet oxygen quencher and the copending specification (Page 19 Line 5-10) identifies the same group of quenchers as instantly claimed. See *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

13. Claims 1-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 5-9, 11-15 and 17 of copending Application No. 10/913,375.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the methods claimed in the copending application fully embrace the compositions instantly claimed.



Regarding the metal-dithiolene species of instant claims 5-25, copending claims 11-15 and the species disclosed in the copending specification (Page 21 Line 11 – Page 24 Line 16) read on the species of the instant claims. See *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

Regarding the Markush group of singlet oxygen quenchers of instant claim 4, copending claim 17 claims the inkjet ink further comprising a singlet oxygen quencher and the copending specification (Page 27 Line 13-18) identifies the same group of quenchers as instantly claimed. See *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 USC 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

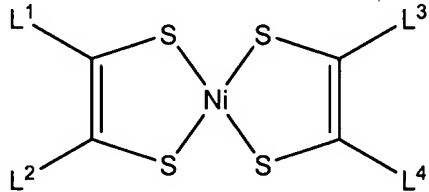
The factual inquiries set forth in *Graham v. John Deere Co.*, 383 US 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 USC 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

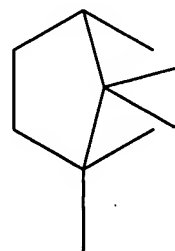
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 1-7, 10-14, 16-23 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent 5,282,894 (Albert hereinafter) in view of US Patent Application Publication 2003/0017551 (Parthasarathy hereinafter).

Albert teaches a printing ink containing IR dyes (Column 1 Lines 5-16) of the

structure  wherein L<sup>1</sup>-L<sup>4</sup> can each be C<sub>1</sub>-C<sub>20</sub> alkyl, which can be interrupted by from 1 to 4 oxygen atoms in ether function—a PEG chain—or L<sup>1</sup>

and L<sup>2</sup> and/or L<sup>3</sup> and L<sup>4</sup> can together form the bridged radical



(Column 3 Lines 12-50).

Since Albert teaches the same R<sup>10</sup>-R<sup>13</sup> moieties as claimed, the reduction of intermolecular interactions of the Albert moieties would inherently be the same as claimed.

Albert does not disclose expressly the composition comprising a singlet oxygen quencher.

Parthasarathy discloses a composition comprising dithiolene dyes (¶0031) and ascorbic acid as instantly claimed as a singlet oxygen quencher (¶0038).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the ascorbic acid singlet oxygen quencher of Parthasarathy in the ink composition of Albert. The motivation to do so would have been to inhibit photodegradation (Parthasarathy ¶0037).

### ***Conclusion***

15. Regarding the following X-references cited on the International Search Report for PCT/AU2004/000436, which claims priority to the same Australian Patent Applications as the instant application:

Japanese Patent Application Publications JP04-146189, JP07-126561, JP07-164729, JP07-216275, JP08-073792, JP11-012425 and JP2000-155439 have no English language equivalents. Translations of each document have been requested and they will be treated in the next Office action.

European Patent Application EP 026164 (Brazes hereinafter) teaches dye compositions comprising platinum-dithiolene compounds but fails to teach the instantly claimed singlet oxygen quencher component.

US Patent 3,588,216 (Bloom hereinafter), US Patent 4,593,113 (Kauffman hereinafter), US Patent 5,036,040 (Chapman hereinafter) and US Patent 5,607,762 (Albert '762 hereinafter) are cumulative to Albert above and also fail to teach the instantly claimed singlet oxygen quencher component.

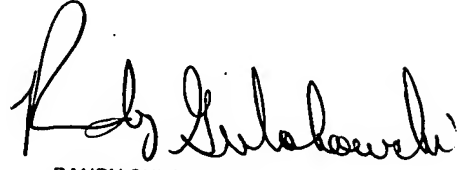
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16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Kugel whose telephone number is (571) 272-1460. The examiner can normally be reached 6:00 AM – 4:30 PM Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJK  
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